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PHOTOGRAPHIC CARD AND METHOD OF PRODUCING THE SAME

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Fig. 1.

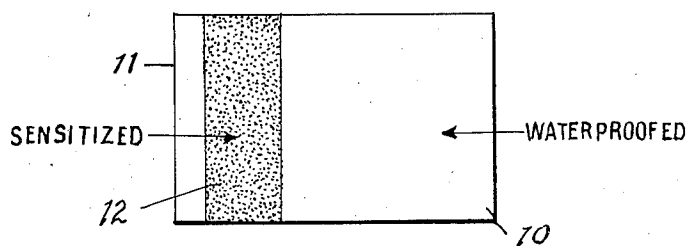
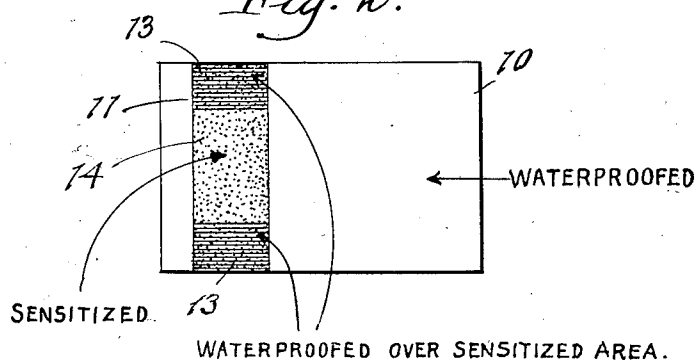


Fig. 2.



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UNITED STATES PATENT OFFICE

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PHOTOGRAPHIC CARD AND METHOD OF PRODUCING THE SAME

Application filed November 18, 1927. Serial No. 234,120.

This invention relates to improvements in a photographic card and the method of producing the same, and has for one of its objects the provision of a sensitized photographic card which is suitable for use in an automatic photographing machine, such as constitutes the subject matter of my application Serial No. 758,989 filed December 31, 1924, in which application I have disclosed an automatic machine which exposes the negative, develops it, then makes an exposure from the negative onto a sensitized card for the positive print, develops the latter, and finally ejects the finished photograph from the machine. This machine has a magazine adapted to be supplied with a quantity of sensitized photographic cards, one of which is shifted to exposing and developing position in each cycle of operations of the machine.

Another object of the invention is the provision of a method of coating the card in the manufacture of the same which shall permit of rapid and low cost machine operations producing a localized sensitized area for the picture.

Other objects are the production of a card so formed as to afford a clear margin around the photograph when finished without the use of a printing mask, to provide a card of the character stated, the border portion of which will not be subject to staining during the developing and fixing operations, to provide a card which shall not be subject to cockling and buckling due to the application of the sensitizing emulsion during the manufacture of the card or to absorption of moisture in the photographing machine, and to prevent the card from getting soggy under the action of the developing, fixing and washing solutions which would interfere with quick drying, the latter being a highly desirable if not an absolutely essential feature for automatic photographing machine work.

Other objects and features of novelty will appear as I proceed with the description of that embodiment of the invention which, for the purposes of the present application, I have illustrated in the accompanying drawings, in which:

Fig. 1 is a face view of the card at an intermediate stage in the process of production, that is, after the photographic emulsion has been applied; and

Fig. 2 is a similar view of the finished card before exposure and development.

Fairly stiff paper stock of a thickness comparable to that of the average post card is the material I prefer to employ as the base of the card. The first step in the production of the finished article is the application of a waterproofing solution preferably to both surfaces and all four edges of the card, thereby removing any possibility of the absorption of moisture, but, in any event, the waterproofing solution should be applied to the face or front side of the card, including that portion which is to be coated with emulsion and the area surrounding such portion. A celluloid solution has been found satisfactory for this purpose, and the same may be applied by dipping the card into the solution, although other methods of coating are within the purview of the invention.

It is essential to the successful operation of my automatic photographing machine above referred to that buckling of the card, due either to the absorption of moisture from the moist condition of the atmosphere in the machine while the cards are in the magazine or to the application of the emulsion to the cards in their manufacture, be prevented, and that the cards be maintained in absolutely flat condition. On this account and also in order to prevent discoloration around the sensitized portion, as well as to prevent the card from getting soggy during its treatment after exposure, the waterproofing of the card is a highly desirable feature.

When the waterproof coating has dried, I apply a strip of emulsion over the waterproofed area, this strip extending entirely across the card from one edge to the other, this strip being of a width less than the corresponding dimension of the card and being positioned to leave a border or unsensitized strip on both sides. This operation of coating with emulsion is preferably performed in a machine designed for the purpose, in which machine the emulsion is brushed on,

flowed on, sprayed on, or otherwise applied. The application of the emulsion in a continuous strip across the card can be performed with much more facility than could be a localized area such as desired for the photograph proper, that is, an area entirely surrounded by an unsensitized or border portion. At any rate, this is true so far as machine operations of which I now have knowledge are concerned.

The location of the sensitized area in a position spaced from all four edges of the card is of considerable advantage for photographic machine use, inasmuch as the cards are supplied in stacks and may be loaded into the machine in daylight. The small amount of light which tends to enter between adjacent cards of the stack does not then penetrate far enough to affect the emulsion whereas the pictures would be light struck were it not for these unsensitized border portions. This type of card also lends itself well to the spray method of developing, which is utilized in my machine.

When the emulsion is dried, a waterproof coating, which again may be a celluloid solution, is applied to the card across one or both ends of the emulsion strip. This operation is also preferably performed in a machine, through which the cards are moved in a direction at right angles to the length of the emulsion strip. No harm results if this latter coating extends in a strip or strips for the entire length of the card, and in fact I prefer to carry out this step in that manner since the machine operation is much simpler if the relation of the path of the cards to the apparatus for applying the coatings does not change as the cards move through the machine.

In the drawing, in which are shown steps in the production of a card by the method above described, 10 represents an area which is preferably waterproofed throughout and may be employed for written or printed data relating to the photograph or to the person of whom the photograph is a portrait, or, if preferred, this space may be employed for a written message as when the card is used as a post card. A narrower portion or strip 11 of waterproofed surface is exposed upon the opposite end of the card to constitute a border for that side of the photograph. In Fig. 1 the strip of sensitized emulsion applied over a waterproofed part of the card is indicated at 12. In Fig. 2 at 13 are indicated waterproofing coating over the ends of the sensitized strip 12. Of course it will be appreciated that I have made no attempt to depict the actual appearance of the coatings in the drawings but have merely indicated their position. Furthermore, it will be understood that in the last step of the process the waterproofing may extend and preferably does extend lengthwise of the card beyond the strip

12 in both directions and that the areas marked 13 define only the waterproofing above the sensitized strip.

The exposed sensitized portion of the finished card is indicated at 14 in Fig. 2. For some purposes this is the most desirable location for the picture, but it will be appreciated that the shape of the picture area as well as its size and location upon the card may be varied to suit conditions without departing from the spirit of the invention.

Having thus described my invention, I claim:

1. A method of producing a photographic card, comprising applying a strip of emulsion entirely across the card from one edge to the other, and applying a waterproof coating to the ends of said strip.

2. A method of producing a photographic card, comprising waterproofing a surface of the card, applying a strip of emulsion over such surface entirely across the card from one edge to the other, and applying a waterproof coating over said emulsion at at least one end of said strip.

3. A method of producing a photographic card, comprising waterproofing a surface of the card, applying a strip of emulsion over said surface entirely across the card from one edge to the other, and applying a strip of waterproof coating crosswise and over the outer surface of said emulsion.

4. A method of producing a photographic card, comprising waterproofing an entire surface of the card, applying a strip of emulsion over said surface entirely across the card from one edge to the other, and applying a strip of waterproof coating entirely across the card in a direction at right angles to said emulsion strip.

5. As an article of manufacture, a photographic card having a sensitized strip extending across one surface from edge to edge, and a waterproof coating over one end of said strip.

6. As an article of manufacture, a photographic card having a waterproof coating entirely covering one surface thereof, a sensitized strip extending across said surface from edge to edge, and a waterproof coating over one end of said strip.

In testimony whereof, I hereunto affix my signature.

GEORGE N. PIFER.